

Cell-phone network technologies: 3g essay



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Cell-phone Network Technologies: 3G 3-G is the third generation of mobile phone standards & technology, which succeeded 2-G mobile technology. It is the latest in mobile communications. 3G technology is intended for the true multimedia cell phone — typically called smartphones — and features increased bandwidth and transfer rates to accommodate Web-based applications and phone-based audio and video files. 3G networks have potential transfer speeds of up to 3 Mbps (about 15 seconds to download a 3-minute MP3 song).

For comparison, the fastest 2G phones can achieve up to 144Kbps (about 8 minutes to download a 3-minute song). 3G's high data rates are ideal for downloading information from the Internet and sending and receiving large, multimedia files. 3G phones are like mini-laptops and can accommodate broadband applications like video conferencing, receiving streaming video from the Web, sending and receiving faxes and instantly downloading e-mail messages with attachments. Because of the technological advancements, 3G cell phones are also capable of streaming TV shows, radio shows, and using the WiFi.

Therefore, 3G is a cell phone network protocol. Cell Phone Generations - Advantage of 3G network over 1G and 2G In this world of latest technology, every new generation comes up with something new, different, and unique than the older generation. The 2G technology was nowhere near up to the job, so the industry began to work on the next generation of technology known as 3G. that is also commonly called as third generation cell phones. NTT DoCoMo in Japan began operating 3G networks in 2001.

In the field of communications, 3G has come up as the hottest thing not only because of its advancement from its earlier versions but also due to its benefits and advantages over 1G and 2G generations of cellular communications. ADVANTAGES OF 3G: * The third generation is characterized by convergence of data and voice with the wireless Internet. In simple words, it can be said that 3G is a system that is suitable for high data transmissions and advanced multimedia applications. * 3G networks have helped network operators in offering its users a vast range of advanced services. 3G systems use protocols that support high data rates and are targeted for applications beyond audio and voice. * MP3, video conferencing, motion video, and lightning fast Internet access are some of the advantages of 3G network over 1G and 2G. The main technological difference that distinguishes 3G technology from 2G technology is the use of packet switching rather than circuit switching for data transmission * Through improved spectral efficiency, a 3G network is able to achieve greater network capacity.

Also in the recent years, 3G networks are able to achieve speeds of more than 384 kbps which allows full mobility to 3G phone users traveling at a speed of 120 km/hour in outdoor settings. 3G systems are also able to achieve a maximum speed of 2 Mbps which allows 3G users with limited mobility walking less than 10 miles per hour in short-range indoors or stationary environments. 3G services * video calls, * broadband wireless, * wide area voice telephony all in a mobile setting. Transfer of voice data (a telephone call) and non-voice data (downloading, email, ; instant messaging). Example : Nokia E75 packed with 3G technology for better

media transmission and a lot of advanced features. DIS-ADVANTAGES:

Despite the success of 3-G, there has also been many complaints about it.

These include criticism over: * cost of 3G phones, * a lack of network

coverage because it's still a new service * the high power usage of 3G

phones.